

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-45. (Canceled).

46. (Currently Amended) A computer implemented method of journaling in a database journal changes to system objects in an operating system with a processor, the method including the steps of:

- i) substituting-executing a dummy function ~~[[for]]~~ in place of a system function when the system function is called;
- ii) executing the system function under operation of the dummy function; and
- iii) generating copies of system objects, changed by the execution of the system function, for journaling; and
- iv) completing execution of the dummy function.

47. (Currently Amended) A method as claimed in claim 46 wherein the dummy function substitutes-is executed in place of the system function by having-assigning a duplicate calling name to the dummy function and pre-empting-arranging the processor to pre-empt the execution of the system function when it is called.

48. (Currently Amended) A method as claimed in claim 47 wherein the dummy function includes an exit point, is associated with the dummy function and an exit program is registered for the exit point.

49. (Currently Amended) A method as claimed in claim 48 wherein during operation of the dummy function the exit program is executed upon reaching the exit point.

50. (Previously Presented) A method as claimed in claim 49 wherein the execution of the system function is handled by the exit program.

51. (Previously Presented) A method as claimed in claim 50 wherein the system objects changed by execution of the system function are captured by the exit program.

52. (Previously Presented) A method as claimed in claim 51 wherein the exit program generates copies of the system objects captured by the exit program.

53. (Previously Presented) A method as claimed in claim 49 wherein the execution of the system function is handled by the dummy function.

54. (Previously Presented) A method as claimed in claim 53 wherein the system objects changed by execution of the system function are captured by the dummy function.

55. (Previously Presented) A method as claimed in claim 54 wherein the exit program generates copies of the system objects captured by the dummy function.
56. (Previously Presented) A method as claimed in claim 52 wherein the copies of the system objects are saved to disk.
57. (Previously Presented) A method as claimed in claim 52 wherein the copies of the system objects are streamed to a database system for journaling.
58. (Previously Presented) A method as claimed in claim 57 wherein the database system is incorporated with a replication system.
59. (Previously Presented) A method as claimed in claim 58 wherein the replication system replicates the copies of the system objects to one or more local or remote databases.
60. (Previously Presented) A method as claimed in claim 52 wherein messages or exceptions generated by the system function are captured into a queue.
61. (Previously Presented) A method as claimed in claim 60 wherein the system function is originally called by a process and the messages or exceptions are forwarded back to the process by the dummy function.

62. (Previously Presented) A method as claimed in claim 52 wherein the system objects are one or more of the set of program objects, configuration objects, queues, and space/memory mapped objects.

63. (Previously Presented) A method as claimed in claim 52 wherein the changed system objects are those system objects which have been created, changed or deleted.

64. (Previously Presented) A method as claimed in claim 52 wherein the system functions are OS/400 system functions.

65. (Currently Amended) ~~[[A]]The method of journaling changes to system objects as claimed in claim 46 further including the steps of:~~

- i) ~~executing [[a]]the system function during which changes to system objects occur;~~
- and
- ii) ~~journaling changes to system objects during execution of the system function.~~

66. (Previously Presented) A method as claimed in claim 65 wherein changes to system objects are journaled by integrating journaling commands into the code of the system functions.

67. (Previously Presented) A method as claimed in claim 65 wherein changes to system objects are journaled by associating exit points with the system function and calling an exit program during execution of the system function.

68. (Currently Amended) A system for journaling in a database journal changes to system objects including:

- i) a processor adapted to execute a dummy function in place of a system function when the system function is called, wherein the dummy function executes the system function and generates copies of system objects resulting from the execution of the system function execution for journaling; and
- ii) memory for use by the processor during execution.

69. (Currently Amended) A system as claimed in claim 68 wherein the dummy function ~~substitutes~~ is executed in place of the system function by having assigning a duplicate calling name and pre-empting to the dummy function that is a duplicate of the system function calling name to pre-empt the execution of the system function.

70. (Currently Amended) A system as claimed in claim 69 wherein the dummy function includes an exit point, is associated with the dummy function and an exit program is registered for the exit point.

71. (Currently Amended) A system as claimed in claim 70 wherein during execution of the dummy function the exit program is executed upon reaching the exit point.

72. (Previously Presented) A system as claimed in claim 71 wherein the execution of the system function is handled by the exit program.

73. (Previously Presented) A system as claimed in claim 72 wherein the system objects changed by execution of the system function are captured by the exit program.

74. (Previously Presented) A system as claimed in claim 72 wherein the exit program generates copies of the system objects captured by the exit program.

75. (Previously Presented) A system as claimed in claim 71 wherein the execution of the system function is handled by the dummy function.

76. (Previously Presented) A system as claimed in claim 75 wherein the system objects changed by execution of the system function are captured by the dummy function.

77. (Previously Presented) A system as claimed in claim 76 wherein the exit program generates copies of the system objects captured by the dummy function.

78. (Previously Presented) A system as claimed in claim 74 wherein the copies of the system objects are saved to disk.

79. (Previously Presented) A system as claimed in claim 74 wherein the copies of the system objects are streamed to a database system for journaling.

80. (Previously Presented) A system as claimed in claim 79 wherein the database system is incorporated with a replication system.

81. (Previously Presented) A system as claimed in claim 80 wherein the replication system replicates the copies of the system objects to one or more local or remote databases.

82. (Previously Presented) A system as claimed in claim 74 wherein messages or exceptions generated by the system function are captured into a queue.

83. (Previously Presented) A system as claimed in claim 82 wherein the system function is originally called by a process and the messages or exceptions are forwarded back to the process by the dummy function.

84. (Previously Presented) A system as claimed in claim 74 wherein the system objects are one or more of the set of program objects, configuration objects, queues, and space/memory mapped objects.

85. (Previously Presented) A system as claimed in claim 74 wherein the changed system objects are those system objects which have been created, changed or deleted.

86. (Previously Presented) A system as claimed in claim 74 wherein the processor is an AS/400 processor.

87. (Previously Presented) A system as claimed in claim 86 wherein the processor is operating under the OS/400 operating system.

88. (Previously Presented) A computer system for effecting the method of claim 46.

89. (Previously Presented) A computer system for effecting the method of claim 65.

90. (Currently Amended) ~~Software~~ A computer readable storage medium tangibly storing software for effecting-executing the method of claim 46.

91. (Currently Amended) ~~Software~~ A computer readable storage medium tangibly storing software for effecting-executing the method of claim 65.

92. (Previously Presented) Storage media containing software as claimed in claim 90.

93. (Previously Presented) Storage media containing software as claimed in claim 91.